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(54) **Access system for managing a set of geographically distributed premises.**

(57) There is described an access system for a plurality of diverse functional environments. In an anteroom display, the system displays an array of access fields that are unconditionally accessible. At least one thereof opens up displaying a further array of access fields that each are associated to a respective functional environment. After accessing, a verification is executed with respect to the prospective user, and if positive, a plurality of fields of a task/function to the hierarchy proper to the environment in question are displayed.

EP 0 559 270 A1

FIELD TO THE INVENTION

The invention relates to a monitor and control system for managing a set of geographically distributed premises, comprising monitor and control means selectively located at such premises and bidirectionally interconnected to said system for exchanging monitoring and control signals.

Present day networked automation allows for a quantum leap in access management system capability. Access management is hierarchizable on a geographical extension, such as according to country, city, building, floor, and control unit (lighting, security, environmental control). As to the object of such management, various technical fields are open, such as access control (generally wanted, but logging is often required), intrusion (generally unwanted, but diverse as to required counter measures), energy (savings always intended, as far as feasible), communication technology (telephone, fax, cable T.V.), alarm (reliable signalling of incidents that may be varying between a faltering shutter and a nuclear meltdown), telephone (incoming and outgoing), paging to various persons, and various others. The invention in particular relates to the improved person/machine interface such as located at a particular physical location, for allowing operators to feel comfortable during the execution of monitoring and control tasks with respect to those premises and executing in general, various physical facilities management operations. The physical actions controlled, sensors interrogated, data bases used, may be situated at physically remote places. Also, local control at such physically remote places may, by itself, be conventional. For example, door control may be local by day and remote by right. The necessary electromechanical provisions, structures, network facilities are by itself conventional and are considered a prerequisite. The invention may likewise be used for the monitoring and controlling of a manufacturing process located in such premises. Although the monitor and control means may be very different from those used for managing buildings or terrains, the accessing organization may be organized correspondingly. Therefore, in such manufacturing the relevant parameters may be running speed of mills, faults recorded, various kinds of stocks, personnel present, and all kinds of physical parameters proper to such manufacturing process. The present inventors have realized the existence of a wide need for consistent managing of tasks and access rights by various people to various functionalities as based on the functions of those people in an organization and intendedly executable functions. By itself, US Patent 4,375,637 to Desjardins discloses a fully integrated alarm security, building management and communication system. However, known technology is little flexible and offers only a rudimentary developed person/interface system.

SUMMARY TO THE INVENTION

Accordingly, amongst other things, it is an object of the invention to provide a superstructure for systematically organized and easy-to-operate logic access even for novice operators to functionality that may be as diverse as recited supra, is robust against operator errors and straightforwardly implementable and extendible. Now according to one of its aspects, the invention provides a monitor and control system of the kind recited, and furthermore comprising data processing means for defining a plurality of diverse functional environments collectively associated to said set of premises and a logic access system for selectively accessing such functional environments, each such environment being associated to a particular subset of said monitor and control means and being intended to a particular category of user, said access system having user interface means including display means for displaying a first array of first access fields each associated with a respective such environment, detection means for detecting a logic access by such user to a particular said access field, verifying means fed by said detection means for executing a verification to any such logic access with respect to the initiating user person, and second display means colocated with said first display means for upon positively verifying, displaying a plurality of further access fields of a task/function hierarchy associated to the particular environment pertaining to the field so accessed. In particular, the diverse functional environments may be named after work room metaphors which has been found easy for recognizing a particular functionality, such as manager (room), control (room), reception, safety centre, etcetera. In practice, the room need not provided physically anymore, inasmuch the system may have its access portable between various terminals that physically may be executed as conventional work stations, network P.C.'s, or other. The individual monitor and control means may have unidirectional interconnection to the system, but as a set the connection is bidirectional. The access fields are limited regions on a display, such as a CRT or LCD-based display. The accessing of an access field uses any appropriate means from the data processing art such as a mouse, keyboard controlled cursor, soft keyboard, acoustic sensing, or other. The access fields may represent a one-dimensional or two-dimensional array. No strict regularity of the array is required, inasmuch as the fields may differ in access frequency, textual content, relevance, or other. The verification may go in various ways, such as by

pass-word, PIN code/pass-card combination, or remotely controlled. The task/function hierarchy may have one or more further levels of access field arrays, and/or have window functionality, camera insert, character insert (delay, defining new items or deleting old ones, etcetera).

By itself, certain aspects of the above have been described in Stuart K. Card and Austin Henderson, Jr., A multiple, Virtual-Workspace Interface to Support User Task Switching, CHI + GI 1987, pages 53-59, ACM 0-89791-213-6/87/0004/0053. In a totally administrative environment, the reference uses working room metaphores, such as Doors, Back Doors, Suites and Rooms, to indicate working environments. The present invention is directed to a fully different field of use, to wit, the monitoring and control of physical premises through an interface that bears only limited likeness to that of the reference that only deals with databases, text, and the like as objects.

Advantageously, said system has anteroom display means for displaying an anteroom array of second access fields that allow for unconditional accessing of respective underlying functionalities of the second access fields, at least one second access field activating display of said array of first access fields. Combination with unconditional accessing provides an extended scope of functionality, thereby rendering access faster or easier for emergency and/or commonplace actions, such as generally accessible telephone functions.

Advantageously, at least one first access field is hierarchically above an alarm or event list field array, such alarm or event list field featuring a plural sub-field array for activating respectively an acknowledging, an inquisitive, and a remedial action with respect to the associated alarm or event. This allows for very easily taking of various types of decision with respect to various kinds of such events or alarms. In particular, the decisions are in standard format. On a next lower hierarchical level they can again go in various directions, but this divergence is only at the level where it is relevant. For example, there is no need to show such divergence before the actual event or alarm had materialized. In particular, the alarms may be serious or not. Sometimes, acknowledgement is a sufficient reaction; sometimes a straightforward remedy or procedure thereto is known, and sometimes the precise nature of the alarm or event must be asked for first.

Advantageously, said alarm or event list field array allows for scrolling rotation therethrough of a plurality of alarm or event items that is larger than fittable in the latter array. This feature allows to put a very complex situation in a limited screen area, whereas all elements remain accessible, be it after some easy rotation. This means that various hierarchical levels, or various branches of the hierarchical tree may kept visible at least partly.

Advantageously, said first and second display are joined and are arranged for allowing extraction through access by said user person of one or more access fields out of their originating array for direct accessibility independently of an actual state of said hierarchy. The joining of the two displays to a single one, such as a screen, allows for easy orientation and inexpensive construction. Furthermore, the extracting may mean that a copy of the field is made at another place on the display. This may be used in that the originating array is closed and so removed from the display. The original version then is removed together with the array, so that consistency on the content of the field in question is maintained throughout the system. In fact, another user could access the array and also the field in question through another screen. The above means that certain fields may remain in sight even abstracted from their originating part of the hierarchy. This allows simultaneous action and/or awareness at quite unrelated parts of the scope of activities.

Advantageously, said extracting is single-stroke effected. Such -placing-has been found particularly advantageous as a fast alternative to dragging.

Advantageously such extracted access field has a close field for by single-stroke fusing the associated extracted field back into its originating array. This allows for easy reset without a user having to steer the extract through a complex hierarchical tree.

Advantageously said extracted access field inflates to a multi-item array of fields. This enables for display of complex activity patterns among which may be chosen in parallel.

Advantageously, said inflated extracted access field is a facility directory. Telephone, fax, etc. communication benefit greatly from such display of a directory that resembles old-fashioned presentation on paper, but combined with dynamic features of present-day technology. Alternatively, the directory relates to a set of physical facilities. In particular, doors to be supervised, cameras to be accessed, and various other items may be arranged according to a directory presentation for easy accessibility.

Advantageously, at least one environment relates to the working room metaphor of a classroom. In contradistinction to the standard HELP function that is restricted to instructing about the actual state of the access process and its immediate ramifications, the classroom facility offers a parallel instructional process that allows for independent travelling in a parallel search organization, that may be organized in a way that is optimal to such instruction proper. This proves that the monitor and

control system for physical premises and facilities as delineated supra, may be advantageously expanded with exclusively metaphorically physical spaces, in particular as an accessory or adjuvant facility. The instruction then may be on the workings of the complete system or any part or aspect thereof.

Advantageously, said verification for at least one said further access field allows multi-class verifying for in each class allowing selectively different access privileges to said task/function hierarchy. A need has been experienced to have different levels of access to the same environment, each different level then allowing its own operations to be executed. For example, certain persons would in the reception room be allowed to inspect a list of actual visitors, assistant receptionists would be allowed to assign visitors badges to low-risk visitors, whereas only the chief receptionist could do so to high-risk visitors.

Advantageously, at least one element of said task/function hierarchy allows for displaying a geographical representation of an operational area that is discretely zoomable between at least two magnification levels. It has been advantageous to provide a map-type representation on various magnification levels. Certain alarms are local, others inflict a larger area. The same can apply to other events. End of the day shift in a manufacturing operation would need unlocking or opening of many doors. Change of the computer operators at midnight would influence much fewer doors.

Advantageously, said representation on at least one magnification level is zoomable at an analog-variable magnification level with step-wise variation of said representation. This has been experienced as being user-friendly.

Advantageously, at least one first access field is hierarchically above an alarm or even list field array, and having switch means for upon accessing a particular alarm or event light field displaying a geographical representation of the operational area around the latter alarm or event's origin. This allows for fast inspection of the place of disaster. Herein, geographic may be related to the earth's surface. In like way, the representation may be of a geographical metaphor, such as a layout of an electrical control panel, a neon light advertisement, or any other where the geomethcal disposition would be relevant.

BRIEF DESCRIPTION OF THE FIGURES

The invention will be described more in detail hereinafter with respect to the appended drawing that shows an exemplary embodiment but should in no way taken as restricting the scope of the present invention; now the Figures show:

Figure 1 an exemplary monitor and control system with a set of geographically distributed premises according to the invention;

Figure 2 a symbolic layout of the main control panel of the monitor and control system at an operator's position;

Figure 3 a symbolic layout of the control panel after a positive verification;

Figure 4 shows an actual layout of the format according to Figure 3;

Figure 5 shows accessing of the tool "camera" plus extraction of a directory;

Figure 6 shows the same for a different directory;

Figure 7 shows the hierarchy below the alarm field;

Figure 8 shows the result of stepping through the hierarchy therefrom;

Figure 9 shows the effect of the remedial access field;

Figure 10 shows a first part of an initiating procedure;

Figure 11 shows a second part of the initiating procedure.

DESCRIPTION OF A PREFERRED EMBODIMENT

Figure 1 shows an exemplary physical system of premises for which the invention provides an access system. The physical system has two buildings 20, 22, with doors 24, 26, lighting devices 28, 30, 32, 34, heating provisions 36, 38, camera's 40, 42, telephone sets 44, 46, alarm detectors 48, 50, data base 52, work station 54, some or all bidirectionally interconnected to data net 56. For simplicity external connections have not been shown. There may be a plurality of work stations instead of a single one for implementing the invention. There may be a management system for managing physical access to the premises through a key system. The doors may be opened or closed automatically. The camera's may pick up visitor's faces. There may be a lighting and heating management system. The system may be used for data processing, preparing reports, statistics on history of the system, warn for burglary, fire, and other accidents, manage telephone calls, and execute many other tasks. The work station may range from a simple P.C. plus monitor to a complex, multi-monitor station that has various particular, actuators, telephone lines, etcetera. A plurality of work stations may be present that are connected to the same data processing server but operate in different working environments. The physical extension of the underlying system may be much larger than shown in Figure 1, but which has not been described more extensively for reasons of brevity.

Figure 2 symbolically shows the layout of the main control panel. this has an array of anteroom access fields displayed at left, as follows:

- the name of the working environment, and additional relevant information for that specific room or other functional environment, like e.g. time, data, etcetera (in this case **"main gate"** 70 is displayed, as a metaphor of a physical position, because the user is yet not in a specific working environment, with the applicable room identification).
- the **corridor** 72, so a user can enter a specific working environment, a room,
- the **overview** 74, to quickly receive information from the system, relating to that specific working environment,
- relevant tools for a specific room, in this case **communication tools** 76,
- and a **guided tour** 78 through the "building".

If the user now wants to enter a room (actuates 72) via the corridor, he is asked to enter name (80) and password (82).

Generally, display 84 has array 86 for the intended working environment, access field 90 for logoff, field 92 for cancelling the window and field 94 for eliciting a help signalization.

Now, the access system supports users executing typical tasks in typical working environments. Typical working environments are:
reception
security office,
control room,
system manager's office,
administration,
facility room,
store room,
class room.

Now, the disclosure hereinafter is generally limited to describing and showing exemplary displays on the screen and how they have been effected. It was felt that a flow chart or the like would produce so many nodes and branches as to obscure rather than enlighten the principles of the invention. The skilled art practitioner would easily adapt the embodiment of the present invention to the requirements of an actual situation. Note that the arrows in Figures 2, 3, 5, 6 do not form part of the standard display, but have been added for clarification of the various process steps.

Now, after successful or positive verification of the user and accessing of the reception work room metaphor, display array 90 is by the system replaced by the working room metaphor shown in Figure 3. On the left hand side the array shows the following succession of blocks:

- reception (room identification) 100;
- corridor (principal functionality) 102, same as 72;
- overview 74;
- main tool clusters 104.

The corridor array 106 lists the various room metaphors, which is a selection of the set referred to supra. The reception room has been highlighted. Further access fields are main gate 107 (=70, controls exit to screen of Figure 2), login 110, and window actions 92, 94 identical to Figure 2.

The field reception can switch to another working environment by going into "the corridor" by selecting and pressing the corridor icon field 102.

After having done that the user can navigate through the system as being in a "real" building by "knocking" on the door of another room (by selecting and actuating the relevant field). The user is only allowed to enter those rooms which correspond to the user's privilege level. In each room only those tools 104 are visible that correspond to the user's privilege level.

A guided tour through the building is available to show the novice system user in a dynamic way what applications and functions are available in each room, and how these applications should be operated (basic principles and operating procedures).

An operator can log off (e.g. work shift) at the main gate.

Figure 4 shows an actual layout of the format of Figure 3 but now after entering the control room metaphor. There are eight metaphors visible, of which the interchange of light and dark edges suggests pressing down of an actual button while prevailing light as simulated is incident from the upper left hand corner. In the control room the following hierarchical tools can be accessed:

- main system: renders other rooms accessible 110
- alarm tool 112
- access tool 114
- camera tool 116
- telephone tool 118
- lighting tool 120
- report tool 122.

Generally, the physical aspects of these tools with respect to their geography were discussed with respect to Figure 1. Here, all of them have been iconized. Of course, such iconizing would also be feasible with respect to the room fields. Now other room metaphors would cause a different set of tools. Reception would have access key distribution, fax, telephone, visitor registration, hours worked logging. Security office would assign security levels and spot computer and other crime through a statistics. Manager's office would allow to overrule various lower level decisions, and would have access to all kinds of sensitive data. Store room would have access to data concerning storage levels, geographical distribution, etcetera.

Classroom would provide all kinds of information as a kind of overall help facility that is accessible independently of the hierarchical state the overall system is in. This would again be effected with an array of access fields where the user may select on one or more levels, thereby choosing a particular subject or aspect, read text presented, view pictures, and even solve tutorial questions posed by the system. Administration keeps all kinds of files. Facilities room in the context of the present system stores all kind of maps, layouts, etcetera on various levels of geometrical scaling.

Figure 5 shows, first the accessing of the tool "camera" from the control room metaphor. As seen, from the whole complement of cameras the operator did only select those five (at two different formats) that were considered most relevant. Of course, the scenes depicted are inconsequential to the invention per se. The invention allows, more or less in parallel to the ongoing viewing of the cameras, to in parallel therewith accessing one or more of the access fields at the left hand side of the overall image. This has been done for the -telephone- field. Upon such accessing, the field (now showing differently from the other fields) inflates to a multi-item row (or column, as the case may be). A first array lists actually incoming telephone calls. Another possibility are the actually ongoing telephone calls. Persons listed have their telephone extensions displayed (either on-premise or off-premise). Likewise, a second array lists external telephone extensions (name plus number). Each of the two lists has a scroller control at its end (arrows up/down). Upon reaching upper or lower end of the list displayed, further scrolling control will make the list (that can have arbitrary length) rotate along the window while keeping the cursor indication stationary. Various control access fields have been shown, such as

-hold- allows to disconnect the call's audio channel, while maintaining the connection; -record-.

-place- for single-stroke extracting a particular cursored item from its array and positioning it at a particular predetermined place in the display, such as in Figure 6 has been done for "Main gate", middle of right hand edge. Such placing is convenient and quick;

-find- for locating a particular item of the array;

-disconnect-.

Accessing the -HELP-field causes display of a help message. Access of the -CLOSE-field will reinsert the -telephone- access field back into its originating array. Similar pairs of access fields have been shown for each of the cameras. -CLOSE- may call up a different camera; -HELP- would indicate where the camera is, what its security level or intention is, etcetera. Exiting from the camera display can be effected, for example, by accessing the -report- field , or corridor (BMS) fields.

Figure 6 gives a similar situation, wherein the camera display constitutes background and the -ACCESS-field is accessed for overlay display. In particular, the hierarchical organization under the ACCESS field is shown. First, directories are displayed for the various gates of two complexes (sites). Site 1 is active as shown, and various operations can be effected. First, remote control is possible to change the state of a particular gate. Further, the gate can be secured, so that it can no longer be opened by an individual key. Further, information on the status of a particular gate can be asked. The array of gates can be scrolled/rotated as described earlier for the telephone array. In this particular example, the two arrays are separately scrollable. PLACE has been considered with respect to the previous Figure.

Each item in arrays has furthermore a -select- access field in front of it. Through selecting, a next lower hierarchical level is accessed, wherein the particular gate is in a separate item (far at right). Now, only the two control actions for the gate in question are shown. As an even lower hierarchical level, a visual simulation of the gate in question is shown at lower right hand side. Each of the three hierarchical levels may now be closed independently, without influencing either upper or lower levels. For the "smaller" display fields the relevant close fields for the display have not been shown. This means in particular that in this case the gate may be opened/closed, without obstruction of the underlying display (here the camera pictures) or without disturbance to the operator by a complex display structure. In this way fatigue and annoyance to an operator is diminished. In similar way, in the set-up of Figure 5, the general alarm number may be put in a particular side display field.

Figure 7 shows a geographical layout of the hierarchy situated below the alarm access field. In this case, a country map is displayed with indications of cities (4) where relevant buildings are. Zooming in can be effected in two ways. Analog zooming can be done by a slide control that is mouse activatable below the picture of the country in question. Inzooming remains centred around the position of the cursor not shown. Inzooming will, if applicable, dissolve a single urban area to a plurality of precincts, villages or similar parts. Discrete zooming is by an array of zoom control fields. The next lower level is the city level. At zoom-out it will show the precinct level dissolved. At zoom-in it will allow discerning of streets. At building level, the discrimination is with respect to entrances or wings. At floor level, the discrimination is with respect to corridor or room. At control unit level, the discrimination is with respect to electric fixture, sensor position, and the like. Analog zoom need

not be provided at each discrete zoom level.

Further, the Figure shows switch control to other countries, and an edit field, wherein at any hierarchical level, changes may be implemented. Moreover, a -HELP- field and a SHOWLIST field are present. The latter at the level of the present hierarchy, inflates to a directory of countries, cities, buildings, floors, and control units, respectively, as far as any event or alarm had occurred in such region or location. Also, the map representation itself allows for showing alarms or events. First, they are shown by a blinking or otherwise conspicuous cursor. In case of two or more simultaneous alarms or events in a particular city, Figure 7 would have then logically ORED for that city. The same is effected at lower discrete zooming level. The blinking cursor can have various urgency levels, indicated, e.g. by blinking frequency, luminance, colour, or special signalization.

Figure 8 has the geographical representation stepped to the floor level, the blinking cursor showing the location of the alarm or event. Through the SHOWLIST field a list or array of actual (or recent) alarms or events is shown. As shown, the array has various control fields. The history field activates a sorting according the instance of occurrence of the respective events or alarms: most recent one lowest in the visible part of the array, which thereupon remains scrollable to earlier instants.

The event field activates a sorting according to the seriousness of the event or alarm. As shown, burglar is most serious, followed by a fire. Again, scrolling and rotating are possible.

The response field activates a sorting according to the sequence in which responses should be effected. A fire, although serious, could have been located and kept under control, even if far from extinguished. A much smaller fire could need an instant response.

Each alarm or event row now has three fields, the central field giving name and location, a left field and a right field. Accessing the central field operates as an acknowledge. Accessing the left field operates as an inquisitive action: it opens a fault diagnosis field also shown. In this case, it meticulously defines the actual location, and also states the cause of the alarm. The field can be closed as usual.

Figure 9 in the same alarm shows what happens when the right field is accessed: this operates as a remedial action. The window shows a sequence of actions that can be executed, and which are again scrollable and rotatable. They have been preprogrammed with respect to the character of the alarm. In case of a burglar, it would call the police, not the fire department. In case of a workshift, it would execute a check on relevant access/exit gates. The window furthermore has a telephone field and an access field. The cursoring combined with accessing the telephone field automatically dials the authority in question, if applicable. The cursoring combined with accessing the access field would control access gates as far as relevant. For example for evacuating all people, all gates are unlocked.

Figure 10 shows a first part of an initiating procedure. Actual environment is the manager's office. From the left hand array, the facility -people- has been accessed. From this facility, the field "users" (of the system) according to the present invention has been accessed, which shows by highlighting. The field -system manager- allows to insert a new name therefor. The same applies to guest users and regular users. The system allows to print data for a particular user, to find a particular user through his name, to ask information about a user, and to amend the list of users, the latter through accessing the -new- key. This opens up the window shown in Figure 11.

Figure 11 shows a second part of the initiating procedure. It allows to enter a new user name through typing in a window. Through accessing the -find- and -new- fields, successively, the user name in Figure 11 becomes directly visible (inclusive of other attributes, such corridor access, etcetera, if applicable). This allows to enter a new password, attribute to a new user group, through single-stroke actuation change access (in either direction) to any of the six environments shown, to assign lower level facilities, of which have been shown access, intrusion, closed circuit television, and communication tools. All these are single stroke activatable, which renders control extremely fast and user-friendly.

Claims

1. A monitor and control system for managing a set of geographically distributed premises, comprising monitor and control means selectively located at such premises and bidirectionally interconnected to said system for exchanging monitoring and control signals, said system furthermore comprising data processing means for defining a plurality of diverse functional environments collectively associated to said set of premises and a logic access system for selectively accessing such functional environments, each such environment being associated to a particular subset of said monitor and control means and being intended to a particular category of user, said access system having user interface means including display means for displaying a first array of first access fields each associated with a respective such environment, detection means

for detecting a logic access by such user to a particular said access field, verifying means fed by said detection means for executing a verification to any such logic access with respect to the initiating user person, and second display means colocated with said first display means for upon positively verifying, displaying a plurality of further access fields of a task/function hierarchy associated to the particular environment pertaining to the field so accessed.

2. A system as claimed in Claim 1, wherein said access system has anteroom display means at said first display means for displaying a steady anteroom array of second access fields that allow for unconditional accessing by said user person of respective underlying functionalities of the respective second access fields, at least one second access field activating display of said first array of first access fields.

3. A system as claimed in Claim 1 or 2, wherein at least one first access field is hierarchically above an alarm or event list field array, such alarm or event list field being associated to a further particular subset of said monitor and control means and featuring a plural sub-field array, each subfield being respectively arranged for allowing activation of an acknowledging, an inquisitive, or a remedial action with respect to an associated alarm or event.

4. A system as claimed in Claim 1, 2 or 3, wherein said first and second display are joined and are arranged for allowing extraction through access by said user person of one or more access fields out of their originating array for direct accessibility independently of an actual state of said hierarchy.

5. A system as claimed in Claim 4, wherein such extracted access field has a close subfield for directly fusing the associated extracted field back to its originating array.

6. A system as claimed in Claim 4 or 5, wherein said extracted access field inflates to a multi-item array of fields.

7. A system as claimed in any of claims 1 to 6, wherein at least one such environment by way of a working room metaphor accesses an instructional classroom database.

8. A system as claimed in any of Claims 1 to 7, wherein said verification for at least one said further access fields allows multi-class verification for in each such class allowing selectively different access privileges to said task/function hierarchy.

9. A system as claimed in any of Claims 1 to 8, wherein at least one item of said task/function hierarchy allows for displaying a geographical representation of an operational area that is zoomable between various magnification levels.

10. A system as claimed in any of claims 1 to 9, wherein at least one first access field is hierarchically above an alarm or event list field array, and having switch means for upon accessing a particular alarm or event list field array displaying a geographical representation of a operational area around the latter's alarm or event physical origin.

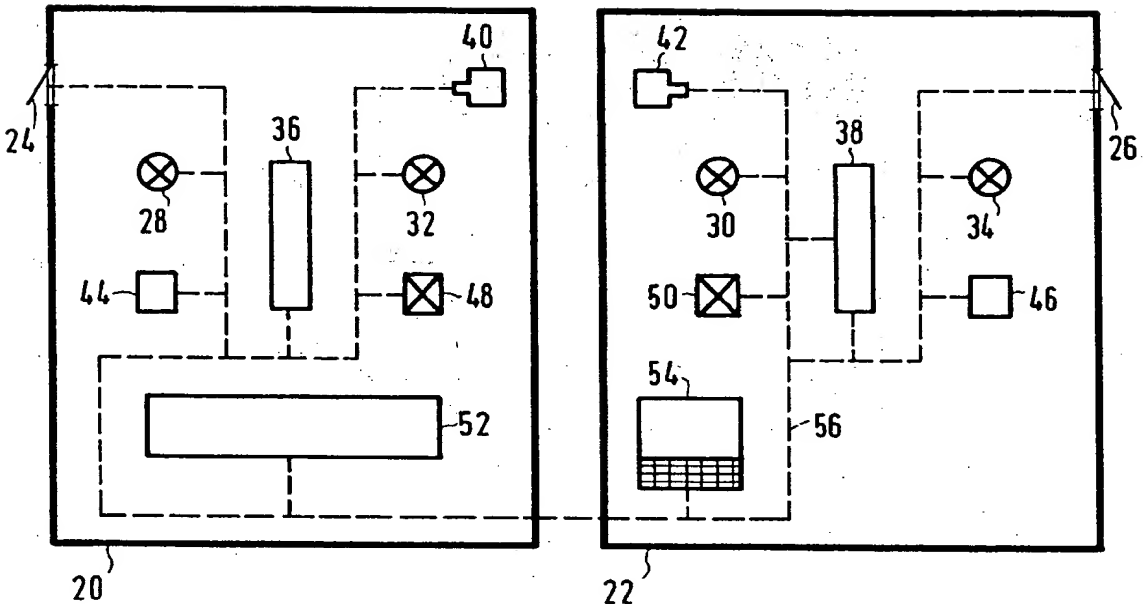
40
42
24
36
38
26
28
32
30
34
44
48
50
46
54
52
56
20
22

FIG.1

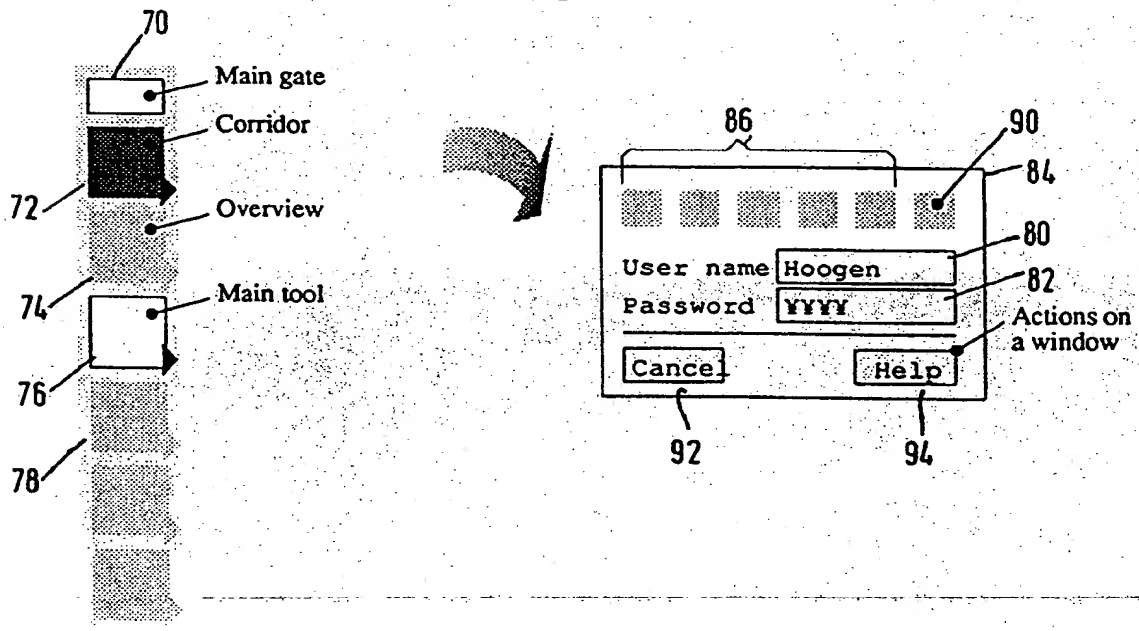
70
Main gate
Corridor
72
Overview
74
Main tool
76
78
86
90
84
80
User name
Hoogen
82
Password
YYYY
Actions on a window
Cancel
Help
92
94

FIG.2

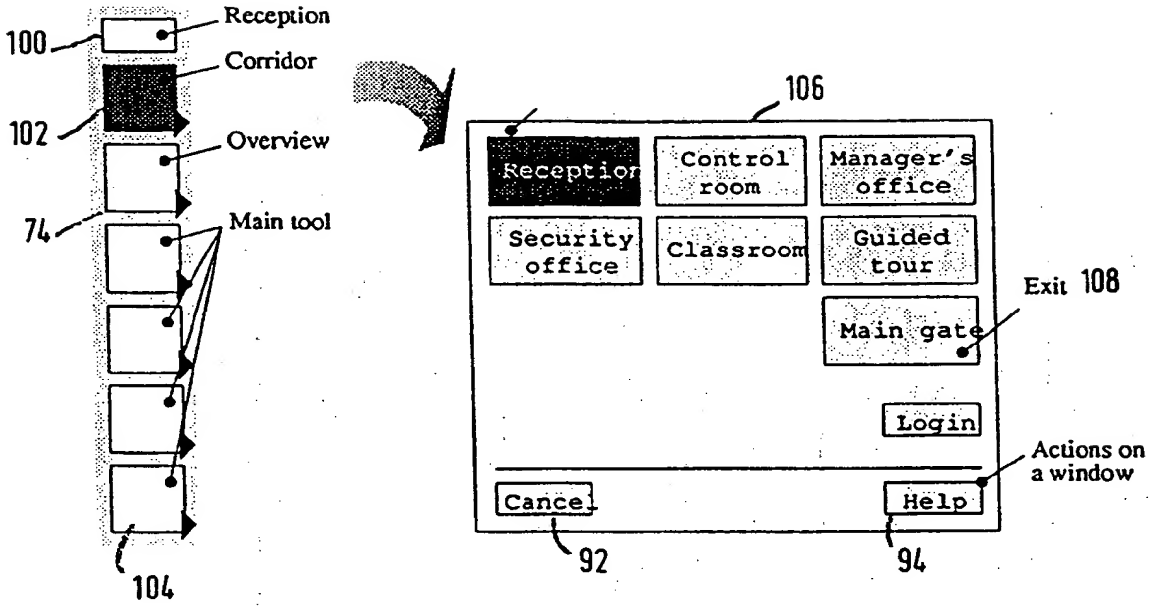
100
Reception
Corridor
102
Overview
74
Main tool
104
106
Reception
Control room
Manager's office
Security office
Classroom
Guided tour
Exit 108
Main gate
Login
Actions on a window
Cancel
Help
92
94

FIG.3

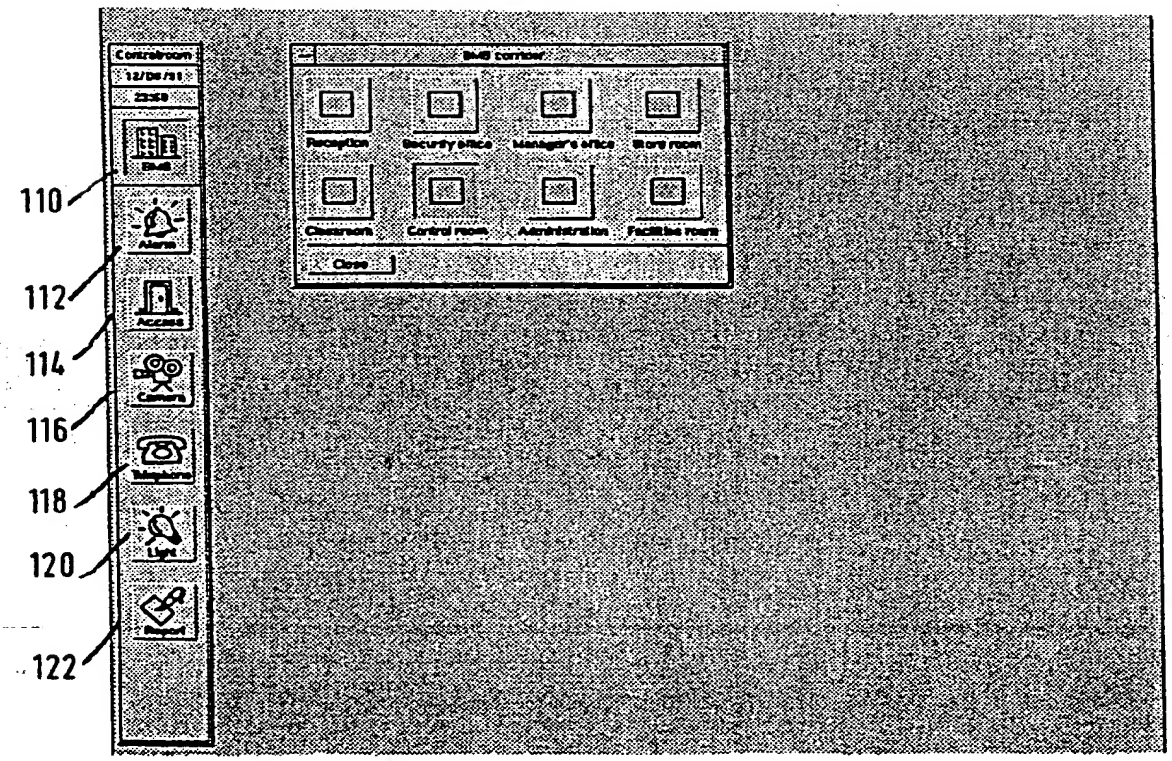
110
112
114
116
118
120
122

FIG.4

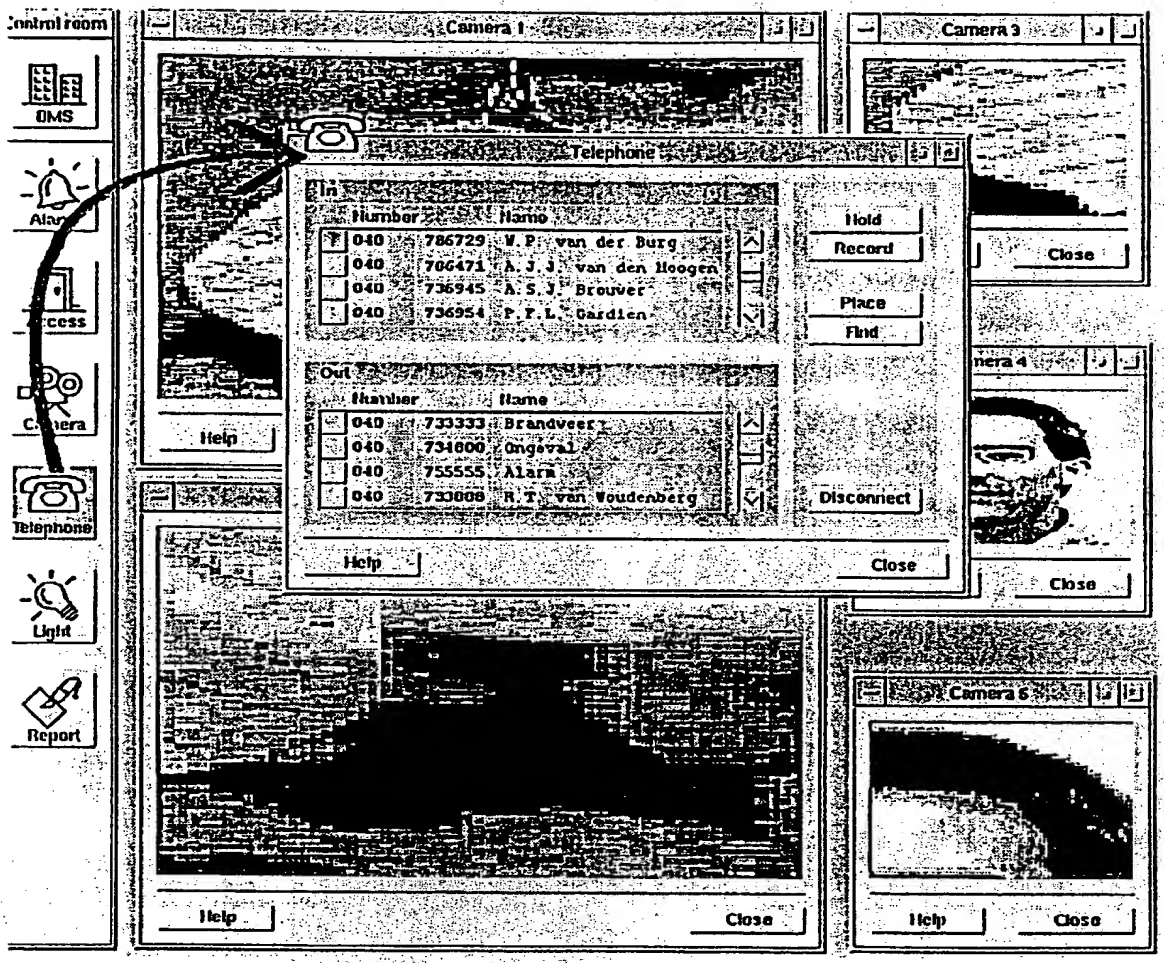
Control room
OMS
Alarm
Access
Camera
Telephone
Light
Report
Camera 1
Help
Close
Camera 3
Close
Telephone
In
Number
Name
040 786729 W.P. van der Burg
040 706471 A.J.J. van den Hoogen
040 736945 A.S.J. Brouver
040 736954 P.P.L. Gardien
Hold
Record
Place
Find
Out
Number
Name
040 733333 Brandweer
040 734800 Ongeval
040 755555 Alarm
040 733008 R.T. van Woudenberg
Disconnect
Help
Close
Camera 4
Close
Camera 5
Help
Close
Help
Close

FIG.5

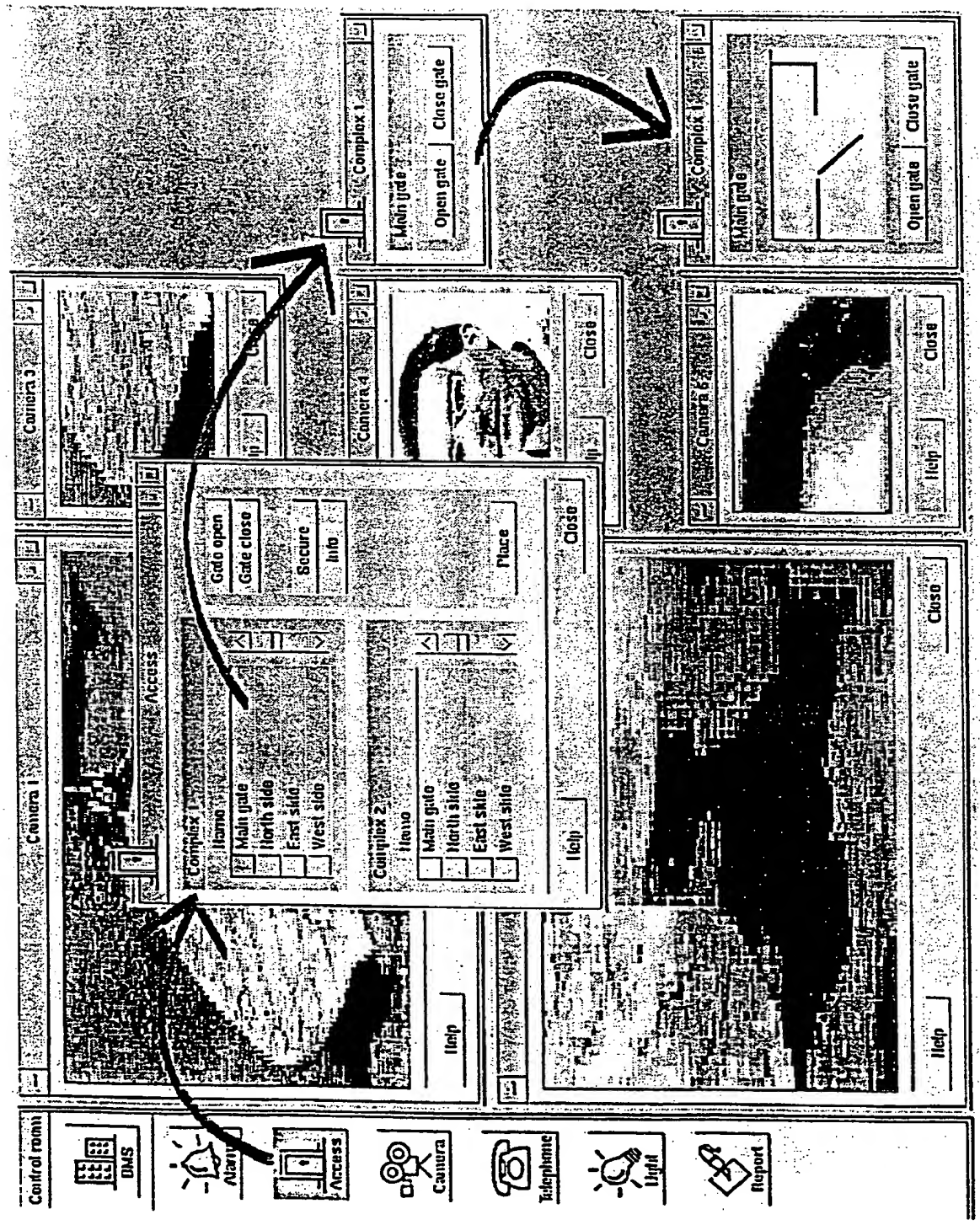
Control room
DMS
Alarm
Access
Camera
Telephone
Light
Report
Camera 1
Access
Complex 1
Home
Main gate
North side
East side
West side
Gate open
Gate close
Secure
Info
Help
Camera 3
Camera 4
Complex 2
Place
Close
Camera 2
Camera 6
Open gate
Close gate

FIG.6

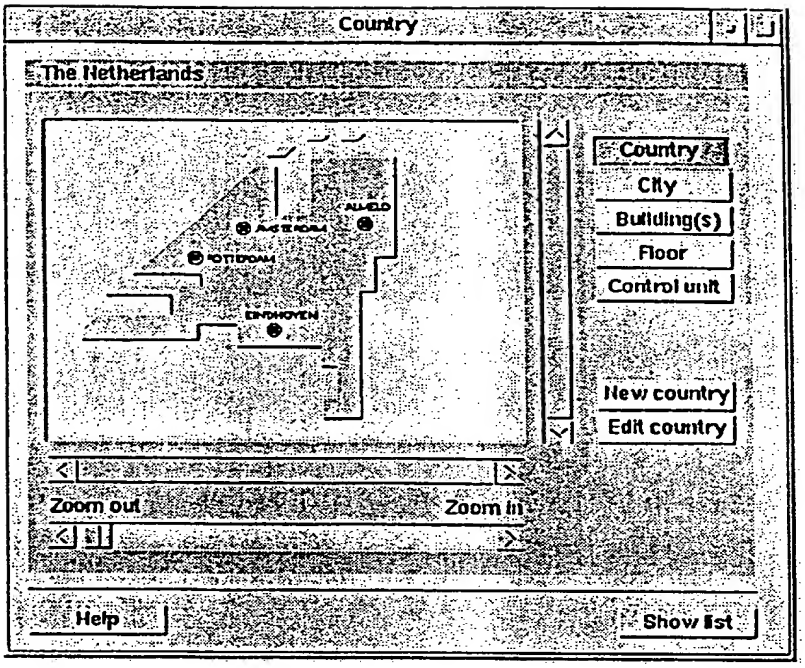
Country
The Netherlands
Country
City
Building(s)
Floor
Control unit
New country
Edit country
Zoom out
Zoom in
Help
Show list

FIG.7

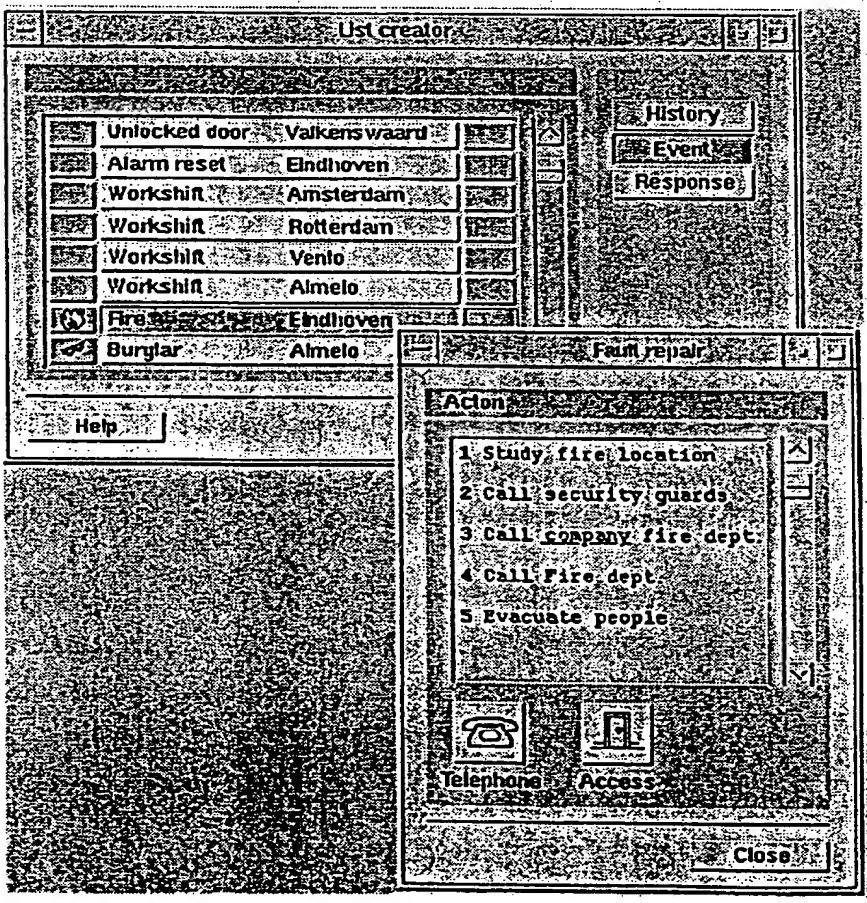
Ust creator
Unlocked door Valkenswaard
Alarm reset Eindhoven
Workshift Amsterdam
Workshift Rotterdam
Workshift Venlo
Workshift Almelo
Burglar Almelo
History
Event
Response
Help
Fault repair
Action
1 Study fire location
2 Call security guards
3 Call company fire dept.
4 Call fire dept.
5 Evacuate people
Telephone
Access
Close

FIG.9

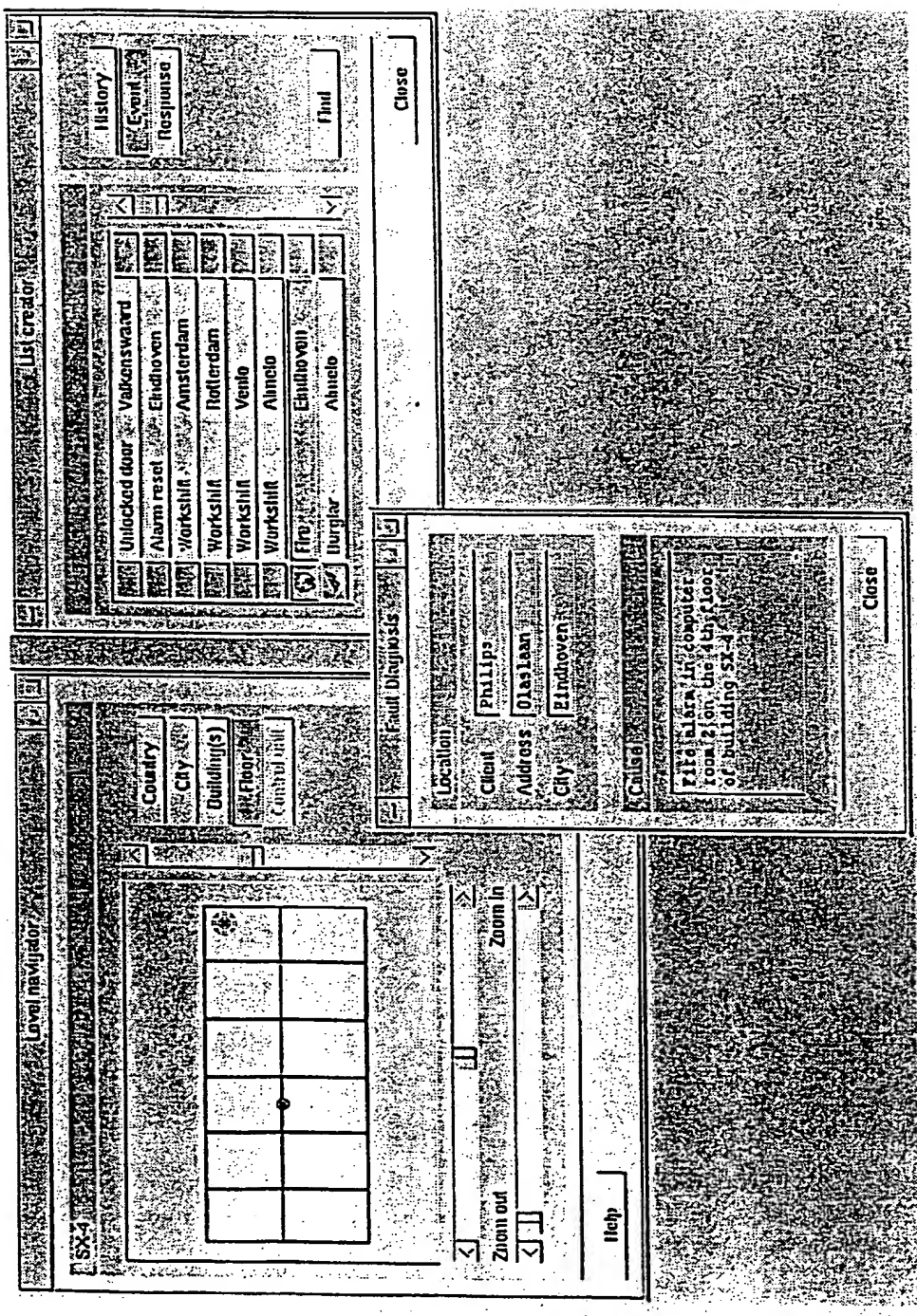
Level navigator
List creator
Country
City
Building(s)
Floor(s)
Control unit
Zoom out
Zoom in
Help
Unlocked door
Alarm reset
Workshift
Workshift
Workshift
Workshift
Fire
Burglar
Valkenswaard
Eindhoven
Amsterdam
Rotterdam
Venlo
Almelo
Eindhoven
Almelo
History
Event
Response
Find
Close
Fault Diagnosis
Location
Client
Philips
Address
Oostaan
City
Eindhoven
Cause
Close

FIG.8

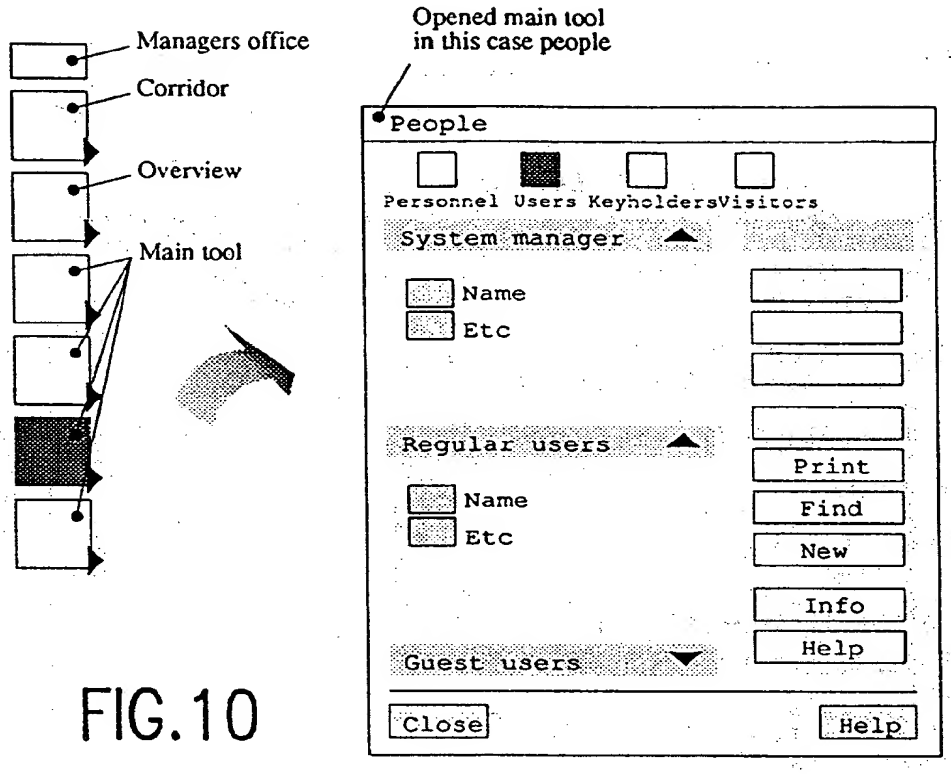
Managers office
Corridor
Overview
Main tool
Opened main tool
in this case people
People
Personnel
Users
Keyholders
Visitors
System manager
Name
Etc
Regular users
Name
Etc
Print
Find
New
Info
Help
Guest users
Close
Help

FIG.10

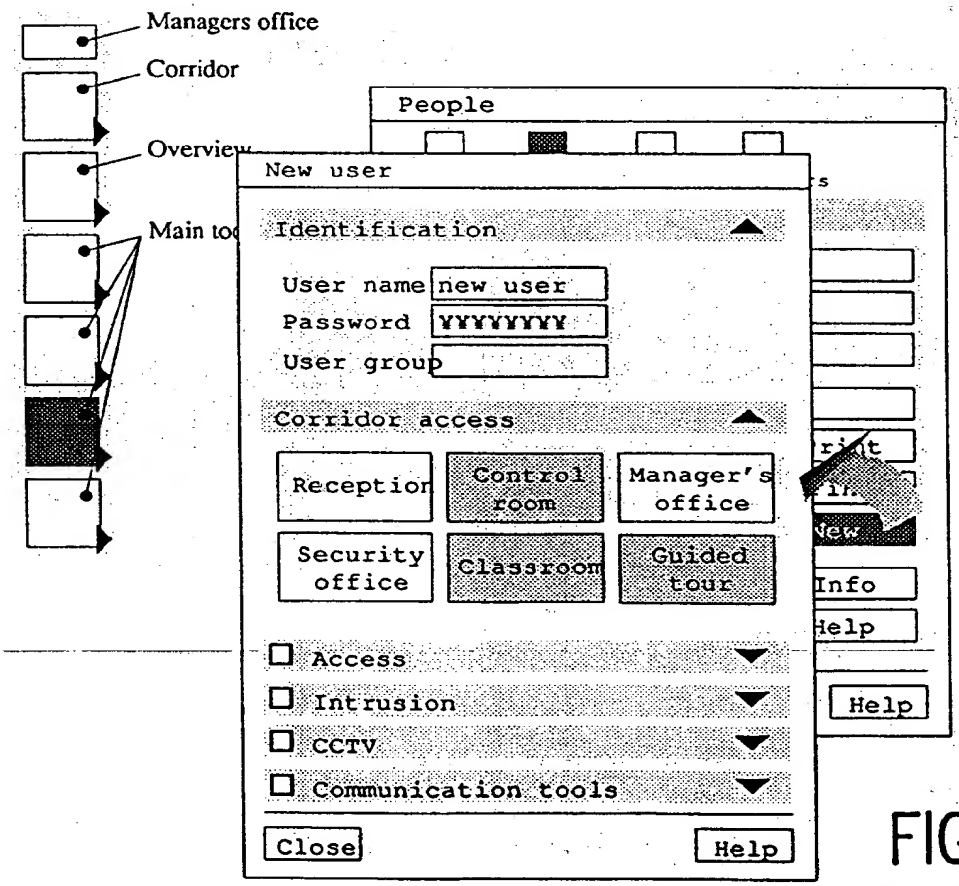
Managers office
Corridor
Overview
Main too
People
New user
Identification
User name
new user
Password
User group
Corridor access
Reception
Control room
Manager's office
Security office
Classroom
Guided tour
Access
Intrusion
CCTV
Communication tools
Close
Help
Info
Help

FIG.11

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 93 20 0520

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	US-A-4 931 769 (PHILLIPS ET AL) * the whole document *	1,8,9	G06F1/00 G08B25/14
Y	IBM TECHNICAL DISCLOSURE BULLETIN. vol. 31, no. 4, September 1988, NEW YORK US pages 99 - 100 'APPLICATION TASK CONTROL (SECURITY)' * the whole document *	1,8,9	
Y	US-A-4 992 866 (MORGAN) * the whole document *	9	
A	ELEKTROTECHNISCHE ZEITSCHRIFT - ETZ vol. 109, no. 12, June 1988, BERLIN DE pages 532 - 537 KNOOP ET AL 'Optimale Mensch-Maschine-Schnittstelle zur Führung von Versorgungsnetzen' * the whole document *	1	
A	IBM TECHNICAL DISCLOSURE BULLETIN. vol. 32, no. 10B, March 1990, NEW YORK US pages 463 - 464 'MENU ICON WITH HIDDEN GEOMETRICAL PASSWORD' * the whole document *	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5) G06F G08B
A,D	US-A-4 375 637 (DESJARDINS) * the whole document *	1	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	08 JUNE 1993	WANZEELE R.J.

CATEGORY OF CITED DOCUMENTS

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